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Efficacy of Neck Stabilization Exercises in Non-Specific Neck Pain-A Literature Review

Roshna P S, Carolin Menezes

Abstract

Background: Neck pain being one of the most common musculoskeletal conditions, has a prevalence that ranges between 22% and 30%, making it one of the prevailing causes of neck disability. Evidence shows neck stabilization exercise gives significant reduction in neck pain. Some also have neck pain even after doing other exercises.

Objective: The manuscript's goal is to give a summary on findings of the efficiency of neck stabilization exercises on non-specific neck pain.

Data sources: All the articles published in English from 2009 till 2022 were included. Data about nonspecific neck pain, treatment methods and outcome measures were also considered.

Study selection: Only randomized controlled trial articles were selected if they discussed about how neck stabilization exercise is useful for non-specific neck pain.

Result: In total 9 articles were included and it was found that neck stabilization exercise can be one of the effective interventions given for non-specific neck pain patients.

Conclusion: Patients with non-specific neck pain showed instant and persistent improvement in neck pain after performing neck stabilization exercise. It was also found that neck stabilization exercise also helps in improving the posture and also improving the quality of life of patients with non-specific neck pain.

Keywords: nonspecific neck pain, neck stabilization exercises.

Introduction

Description of the condition

Nonspecific neck pain is described as general neck discomfort brought on by mechanical and postural factors without a specific underlying ailment. People who have persistent neck pain may notice severe declines in their quality of life (QOL), which can cause psychological, behavioral, mental, and psychosocial problems. Estimates of the prevalence of neck pain range between 22% and 30%, making it one of the most common types of pain. Up to 60% of individuals experience persistent neck pain, making neck pain a serious personal and societal health problem. It is still unclear how non-specific neck pain develops. Without any underlying systemic or particular diseases being found, nonspecific neck pain may develop. According to the study, sedentary lifestyles, stressful jobs, prior neck injuries, aberrant postures, and impaired neuromuscular control of the cervical muscles are the key risk factors for non-specific neck discomfort. The scapular region has been identified, particularly recently, as one of the causes of neck discomfort. A significant issue that affects a broad population's capacity to function is non-specific neck pain. Strong data indicates that biomechanical factors, such as prolonged computer use, posture, and repetitive movements, are highly related to the onset of neck pain. Neck pain can result from psychosocial stress in addition to biomechanical reasons. Functional conditions, activity levels, and job performance may all decline over time, and psychological problems like depression and anxiety may also show up. These things all have a negative effect on a person's quality of life.

Description of the intervention

Neck stability exercises can be utilized as a treatment for non-specific neck pain. The ability of stabilization exercise to improve balance is what gives it its curative power. Stabilization

exercise emphasis on movement and resistance to the extremities while retaining spine position control. at each performance level, increasing the time and number of cycles is employed to develop muscular endurance IN a rehabilitation programme designed to lessen pain, enhance function, and stop further injury, neck stabilization exercises (NSE) were used. It is a type of exercise that, like its counterpart in the lumbar spine, is intended to improve the inborn mechanisms that allow the spine to move. The cervical spine is still stable and unharmed. This is accomplished through a range of workouts that, though straightforward in terms of time and resources, are physiologically challenging.

Methodology

Research question: efficacy of neck stabilization exercise on non-specific neck pain.

Information sources: The research engine used for the analysis of literature are PubMed and google scholar with studies published after 2009.

Type of study: we included only randomized controlled study and comparative studies for studying the effectiveness of stabilization exercise on non-specific neck pain patients.

Study selection process: To find pertinent research for this study, multiple search engines are used to scan important literature databases. Nonspecific neck discomfort, neck stabilization exercises, and patient reported outcome measures were the search terms employed. Research was reviewed and chosen using three different methods: title review, abstract review, and full text review. To determine each article's eligibility for this evaluation, the inclusion and exclusion criteria were applied to all of them.

Inclusion criteria

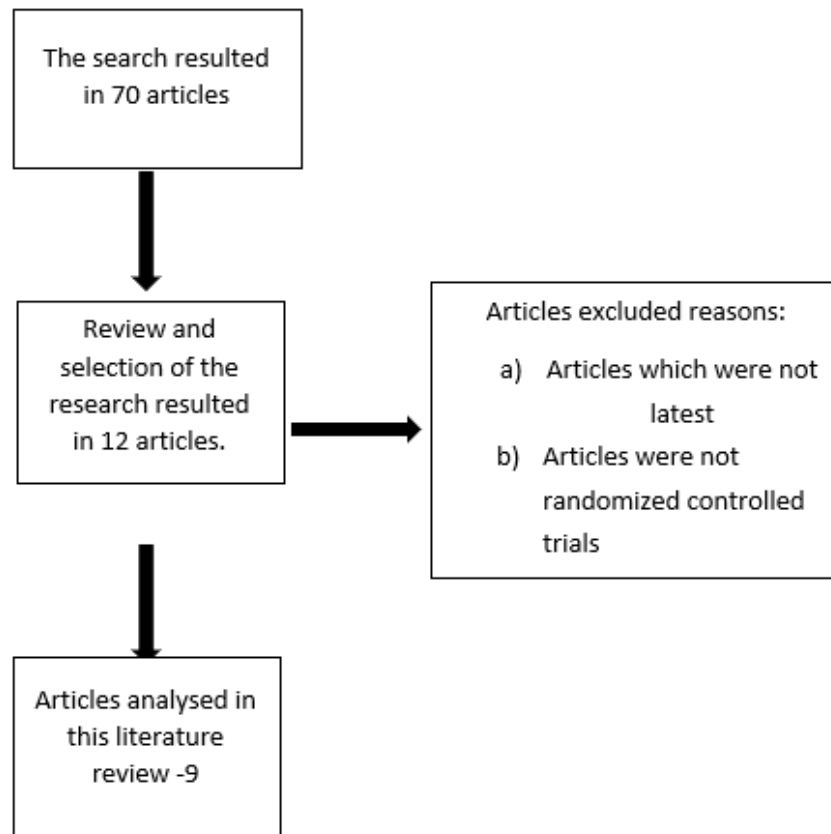
Participants were papers related to the

- 1. Effects of neck stabilization exercise in non-specific neck pain.
- 2. Studies conducted during 2009-2020.

Exclusion criteria

- 1. Studies proceeding to years prior to 2009.
- 2. Articles which have to be purchased

Stages Adopted for Selection of Articles



Result

We systematically searched on these electronic databases: google scholar and PUBMED. All English literature published from 2009 to 2022 and randomized controlled trial was only included. We got around 12 articles.in the second step 3 articles were removed because of not meeting the inclusion criteria.

Discussion

The goal of this study was to determine how neck stability exercises affected generalized neck discomfort. In this

study, a total of nine articles were chosen to determine how stabilization and dynamic exercises affected the level of pain, anxiety, and depressive symptoms in patients with non-specific neck pain. While the majority of research examined the effects of stabilizing and dynamic workouts over the long term, six studies also performed a follow-up to 12 months. Out of the nine articles in this review, the majority of the trials demonstrated improvement in outcome measures. Almost all studies revealed that the intervention improved pain, range of motion (ROM), disability, and quality of life. When compared to all other

treatments, long-term papers with follow-up demonstrated a significant increase in cervical range of motion when examined after the intervention is used. The inability to blind the research assistant who carried out the intervention is one of the study's flaws because, in a typical RCT, both participants and those who carry out interventions are blinded, but there are challenges with this in physiotherapy. Self-reported outcomes are also constrained since they are subject to outcome bias and placebo effects, such as the VAS and Beck Depression.

Conclusion

The results of this study demonstrated the effectiveness of neck stability exercise in reducing non-specific neck discomfort. In this study, significant improvements were observed in the patients' pain, disability, cervical range of motion, quality of life, mood, and other factors. The study came to the conclusion that static, dynamic, and static and dynamic exercises were all effective in reducing depression and anxiety and relieving pain in patients with non-specific neck pain. Future studies must employ bigger sample numbers and use the intervention for longer periods of time in order to generalize the clinical usage of this intervention for the management of nonspecific neck pain

Funding

Self

Conflict of Interest

None

Reference

1. Shin HJ, Kim SH, Hahm SC, Cho HY. Thermotherapy Plus Neck Stabilization Exercise for Chronic Nonspecific Neck Pain in Elderly: A Single-Blinded Randomized Controlled Trial. *Int J Environ Res Public Health*. 2020;17(15):5572. Published 2020 Aug 1. doi:10.3390/ijerph17155572
2. Yesil H, Hepguler S, Dundar U, Taravati S, Isleten B. Does the Use of Electrotherapies Increase the Effectiveness of Neck Stabilization Exercises for Improving Pain, Disability, Mood, and Quality of Life in Chronic Neck Pain? A Randomized, Controlled, Single-Blind Study. *Spine (Phila Pa 1976)*. 2018;43(20):E1174-E1183. doi:10.1097/BRS.0000000000002663
3. Celenay ST, Akbayrak T, Kaya DO. A Comparison of the Effects of Stabilization Exercises Plus Manual Therapy to Those of Stabilization Exercises Alone in Patients with Nonspecific Mechanical Neck Pain: A Randomized Clinical Trial. *J Orthop Sports Phys Ther*. 2016;46(2):44-55. doi:10.2519/jospt.2016.5979
4. Celenay ST, Kaya DO, Akbayrak T. Cervical and scapulothoracic stabilization exercises with and without connective tissue massage for chronic mechanical neck pain: A prospective, randomized controlled trial. *Man Ther*. 2016; 21:144-150. Doi: 10.1016/j.math.2015.07.003
5. Yildiz TI, Turgut E, Duzgun I. Neck and Scapula-Focused Exercise Training on Patients with Nonspecific Neck Pain: A Randomized Controlled Trial. *J Sport Rehabil*. 2018;27(5):403-412. doi:10.1123/jsr.2017-0024
6. Kaka B, Ogwumike OO, Adeniyi AF, Maharaj SS, Ogunlade SO, Bello B. Effectiveness of neck

stabilization and dynamic exercises on pain intensity, depression and anxiety among patients with non-specific neck pain: a randomized controlled trial. *Scand J Pain*. 2018;18(2):321-331. doi:10.1515/sjpain-2017-0146

7. Dusunceli Y, Ozturk C, Atamaz F, Hepguler S, Durmaz B. Efficacy of neck stabilization exercises for neck pain: a randomized controlled study. *J Rehabil Med*. 2009;41(8):626-631. doi:10.2340/16501977-0392
8. Griffiths C, Dziedzic K, Waterfield J, Sim J. Effectiveness of specific neck stabilization exercises or a general neck exercise program for chronic neck disorders: a randomized controlled trial. *J Rheumatol*. 2009;36(2):390-397. doi:10.3899/jrheum.080376
9. Ghaderi F, Jafarabadi MA, Javanshir K. The clinical and EMG assessment of the effects of stabilization exercise on nonspecific chronic neck pain: A randomized controlled trial. *J Back Musculoskeletal Rehabil*. 2017;30(2):211-219. doi:10.3233/BMR-160735